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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/655,787	09/06/2000	Yasuo Kobayashi	08038.0021	8669

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EXAMINER

RINEHART, KENNETH

ART UNIT	PAPER NUMBER
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3749

DATE MAILED: 08/28/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/655,787

Applicant(s)

KOBAYASHI, YASUO

Examiner

Kenneth B Rinehart

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 July 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-32 is/are pending in the application.
- 4a) Of the above claim(s) 14-20 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21-23 is/are allowed.
- 6) ☒ Claim(s) 24-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 February 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Specification

The disclosure is objected to because of the following informalities: page 5 of the disclosure refers to Claim 3 on line 1, claim 4 on line 3, claim 5 on line 10, claim 6 on line 13, claim 7 on line 19, claim 8 on line 25, claim 9 on line 28, claim 10 on line 32, claim 11 on line 36, page 6 of the disclosure refers to Claim 12 on line 2, claim 6 thru 11 on line 4, claim 13 on line 10.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 24-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 24 recites the limitation "the mount for cooling the object to be processed " in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 24 recites the limitation "on the mount" in line 3 which renders the claim indefinite. There are two mounts referred to earlier in the claim.

Claim 25 recites the limitation "on the mount" in line 3 which renders the claim indefinite. There are two mounts referred to earlier in the claim.

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Claim 27 recites the limitation "the surface processing apparatus" in line 4. There is insufficient antecedent basis for this limitation in the claim. The preamble of claim 21 refers to an apparatus for surface treatment.

Claim 32 recites the limitation "the surface processing apparatus" in line 4. There is insufficient antecedent basis for this limitation in the claim. The preamble of claim 31 refers to an apparatus for surface treatment.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 29, and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Suzuki et al. Suzuki et al show a processing vessel into which an object to be processed is placed (1,2,3, fig. 1); means for supplying a chlorine containing gas into the processing vessel (38, fig. 2a, col. 2, lines 37-38), and means for activating the chlorine containing gas supplied into the processing vessel (col. 4, lines 49-63); means for supplying a reducing gas into the processing vessel (33, fig. 2a, col. 4, line 43); means for supplying cleaning gas into the processing vessel (38, fig. 2a, col. 2, lines 37-38); means for promoting adhesion of the cleaning gas to the object to be processed (col. 4, lines 18-26); and means for activating the cleaning gas supplied in the processing vessel (col. 4, lines 49-63).

Claim Rejections - 35 USC § 103

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 30 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al in view of Ukai et al. Suzuki et al discloses a processing vessel into which an object to be processed is placed (1,2,3, fig. 1); means for supplying a chlorine containing gas into the processing vessel (38, fig. 2a, col. 2, lines 37-38), and means for activating the chlorine containing gas supplied into the processing vessel (col. 4, lines 49-63); means for supplying a reducing gas into the processing vessel (33, fig. 2a, col. 4, line 43); means for supplying cleaning gas into the processing vessel (38, fig. 2a, col. 2, lines 37-38); means for promoting adhesion of the cleaning gas to the object to be processed (col. 4, lines 18-26); and means for activating the cleaning gas supplied in the processing vessel (col. 4, lines 49-63). Suzuki et al discloses applicant's invention substantially as claimed with the exception of a transport chamber for maintaining a non reactive atmosphere therein and for transporting an object to be processed in the non reactive atmosphere to and from the apparatus for surface treatment or the surface processing apparatus; and at least one processing apparatus for transporting the object to be processed to and from the transport chamber. Ukai et al teaches a transport chamber for maintaining a non reactive atmosphere therein (2, fig. 4) and for transporting an object to be processed in the non reactive atmosphere to and from the apparatus for surface treatment or the surface processing apparatus (5, fig. 4); and at least one processing apparatus for transporting the object to be processed to and from the transport chamber (49, fig. 4) for the purpose of

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preventing contamination. It would have been obvious to one of ordinary skill in the art to modify Suzuki et al by including a transport chamber for maintaining a non reactive atmosphere therein and for transporting an object to be processed in the non reactive atmosphere to and from the apparatus for surface treatment or the surface processing apparatus; and at least one processing apparatus for transporting the object to be processed to and from the transport chamber as taught by Ukai et al for the purpose of preventing contamination and thus reduce production costs.

Allowable Subject Matter

Claims 21-23 are allowed.

Claims 24-28 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents are cited to further show the state of art with respect to plasma apparatus in general: Yamazaki et al (6059922), Fukasawa et al (5342471), Horiike et al (5851600), Komino et al (5478429), Hatano et al (5989345), Fairbairn et al (5614055), Fairbairn et al (5976308), Collins et al (5772832), Satou et al (5961850).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth B Rinehart whose telephone number is 703-308-1722. The examiner can normally be reached on 7:30-4:30 M-F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ira Lazarus can be reached on 703-308-2597. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7764 for regular communications and 703-308-7764 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0861.

KBR
August 24, 2002

A handwritten signature in black ink, appearing to read "H. B. Miller". The signature is fluid and cursive, with the first name "H." and last name "Miller" clearly distinguishable.